

L8 ANSWER 265 OF 383 CA COPYRIGHT 2002 ACS

AN 127:35546 CA

TI Reusable and volume-reducible polyester bottles

IN Tanaka, Seisuke; Yoshida, Jun; Tokumizu, Makoto; Ishiwatari, Shuji

PA Mitsubishi Rayon Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08G063-189

ICS B29D022-00; B29K067-00

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09110970	A2	19970428	JP 1995-290620	19951013

AB The bottles consist of polyesters with glass-transition temp.  
.gtoreq.80.degree. from 3-100 mol% 2,6-naphthalenedicarboxylic acid or

its ester-forming derivs. (based on total acid components) and are applicable  
for hot-fill and able to reuse after washing with alk. hot water and to  
reduce their vol. by compression or folding. Thus, a polyester  
(glass-transition temp. 95.degree.) prepd. from 30 mol part di-Me  
2,6-naphthalenedicarboxylate, 70 mol part di-Me terephthalate, and 240

mol part ethylene glycol was stretch blow-molded at 280.degree. to give a  
foldable bottle showing good compression property, alkali  
**resistance**, and hot-fill **resistance**.

ST polyester bottle reusable naphthalene dicarboxylate; vol reducible  
polyester bottle compression; hot fill polyester bottle  
naphthalenedicarboxylate; alkali **resistance** polyester bottle  
naphthalenedicarboxylate reusable

IT Chemically **resistant** materials  
(alkali-**resistant**; reusable and vol.-reducible polyester  
bottles having naphthalenedicarboxylate components)

IT Bottles  
(reusable and vol.-reducible polyester bottles having  
naphthalenedicarboxylate components)

IT Polyesters, uses  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
engineered material use); PREP (Preparation); USES (Uses)  
(reusable and vol.-reducible polyester bottles having  
naphthalenedicarboxylate components)

IT 24968-11-4P 25853-85-4P, Dimethyl 2,6-naphthalenedicarboxylate-ethylene  
glycol copolymer **26221-57-8P**, Dimethyl 2,6-  
naphthalenedicarboxylate-dimethyl terephthalate-ethylene glycol copolymer  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
engineered material use); PREP (Preparation); USES (Uses)  
(reusable and vol.-reducible polyester bottles having  
naphthalenedicarboxylate components)

L11 ANSWER 9 OF 110 CA COPYRIGHT 2002 ACS

AN 132:322752 CA

TI Laminating films for metal sheets with improved impact resistance at low temperature

IN Kubo, Koji; Murooka, Hirofumi

PA Teijin Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-36

ICS B21D022-20; B32B015-08; B32B027-28; B65D001-09; B65D025-36;  
B65D065-40; **C08G063-183**; C08J005-18; C08L033-00;  
C08L067-02; B29C055-12

CC 33-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 17, 55

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000127320	A2	20000509	JP 1998-300973	19981022
AB	The films, useful for beverage and food cans, consist of layers comprising				
	ethylene terephthalate copolymers having m.p. 210-245.degree. and layers comprising 5-45% copolyesters having m.p. 210-245.degree. and 55-95% ionomers. A Sn-free steel sheet was laminated with a film comprising a layer of ethylene terephthalate copolymer contg. 18 mol% 2,6-naphthalenedicarboxylic acid and a layer comprising 30/70 blend of				
the	copolymer and Himilan 1652 and deep-drawn to give a can showing good flavor retention and heat, retort, and impact resistance.				
ST	PET naphthalenedicarboxylate copolymer ionomer laminate film; impact resistance film metal sheet laminate; food can laminate polyester ionomer film				
IT	Cans				
	Laminated plastic films				
	(laminating films for metal sheets with improved impact resistance at low temp.)				
IT	Ionomers				
	Polyesters, uses				
	RL: FFD (Food or feed use); POF (Polymer in formulation); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)				
	(laminating films for metal sheets with improved impact resistance at low temp.)				
IT	Metals, uses				
	Polymer blends				
	RL: FFD (Food or feed use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)				
	(laminating films for metal sheets with improved impact resistance at low temp.)				
IT	9017-34-9, Ethylene glycol-isophthalic acid-terephthalic acid copolymer, sru 24938-04-3, Ethylene glycol-isophthalic acid-terephthalic acid copolymer 25038-91-9, 1,4-Cyclohexanedimethanol-ethylene glycol-terephthalic acid copolymer <b>25915-92-8</b> , Ethylene glycol-2,6-naphthalenedicarboxylic acid-terephthalic acid copolymer 28516-43-0, Himilan 1652				
	RL: FFD (Food or feed use); POF (Polymer in formulation); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)				
	(laminating films for metal sheets with improved impact resistance at				

low temp.)  
IT 12597-69-2, Steel, uses  
RL: FFD (Food or feed use); TEM (Technical or engineered material use);  
BIOL (Biological study); USES (Uses)  
(laminating films for metal sheets with improved impact resistance at  
low temp.)

L11 ANSWER 24 OF 110 CA COPYRIGHT 2002 ACS

AN 131:170793 CA

TI Continuous manufacture of transparent gas-barrier copolyesters with antimony trioxide catalyst

IN Koide, Kenji

PA Nippon Ester Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM **C08G063-78**

CC 35-5 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 17, 38, 67

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	----	-----	-----
PI	JP 11236439	A2	19990831	JP 1998-38561	19980220
AB	The copolyesters [intrinsic viscosity (.eta.) .gtoreq.0.50 dL/g], esp. useful for transparent gas-barrier bottles, are manufd. by continuously feeding a slurry contg. terephthalic acid (I), naphthalenedicarboxylic acid (or isophthalic acid), and ethylene glycol (II) and H3PO4 at 30-10 mol (based on 1 mol Sb2O3 added in the following polycondensation reaction) into an esterification tank while removing H2O formed from the system and then continuously feeding the esterification products into a polycondensation tank to which Sb2O3 at (0.5-1.5) .times. 10 <sup>-4</sup> mol (based on 1 mol of the acid components of the polyesters) and sulfonic acids at 0.5-1.5 mol (based on 1 mol Sb2O3). Thus, I 93, 2,6-naphthalenedicarboxylic acid 7, and II 170 mol were esterified in the presence of 5.6 .times. 10 <sup>-4</sup> mol H3PO4 at 260.degree. in an esterification tank at av. residence time 7.7 h to esterification rate 95.3% and polycondensed in the presence of 0.9 and 0.7 .times. 10 <sup>-4</sup> mol Sb2O3 and 5-sulfosalicylic acid, resp., in 2 sequential polycondensation tanks at av. residence time 2.0 and 2.2 h, resp. to give a polyester showing .eta. 0.61 dL/g (20.degree., in 1:1 PhOH-tetrachloroethane mixt.), haze (5 mm-thick plate) 5.4%, and O permeability (100 .mu.m-thick film) 12.5 mL/m <sup>2</sup> -24 h-atm.				
ST	ethylene naphthalenedicarboxylate terephthalate polyester manuf transparency; isophthalate terephthalate ethylene glycol copolyester manuf; antimony trioxide polymn catalyst polyester manuf; phosphate catalyst esterification polyester manuf; gas barrier bottle naphthalenedicarboxylate terephthalate copolyester; sulfonate antimony trioxide catalyst polyester manuf				
IT	Bottles Esterification catalysts Polymerization catalysts Transparent materials (continuous manuf. of transparent gas-barrier copolyesters with H3PO4, sulfonic acids, and Sb2O3 catalysts)				
IT	Sulfonic acids, uses FL: CAT (Catalyst use); USES (Uses) (continuous manuf. of transparent gas-barrier copolyesters with H3PO4, sulfonic acids, and Sb2O3 catalysts)				
IT	Polyesters, preparation FL: FFD (Food or feed use); IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)				

- (continuous manuf. of transparent gas-barrier copolyesters with H3PO4, sulfonic acids, and Sb2O3 catalysts)
- IT Containers  
(food; continuous manuf. of transparent gas-barrier copolyesters with H3PO4, sulfonic acids, and Sb2O3 catalysts)
- IT 81-08-3 97-05-2, 5-Sulfosalicylic acid 594-45-6, Ethanesulfonic acid 1309-64-4, Antimony trioxide, uses 7664-38-2, Phosphoric acid, uses  
RL: CAT (Catalyst use); USES (Uses)  
(continuous manuf. of transparent gas-barrier copolyesters with H3PO4, sulfonic acids, and Sb2O3 catalysts)
- IT 9017-34-9P, Ethylene glycol-isophthalic acid-terephthalic acid copolymer, sru 24938-04-3P, Ethylene glycol-isophthalic acid-terephthalic acid copolymer **25915-92-8P**, Ethylene glycol-2,6-naphthalenedicarboxylic acid-terephthalic acid copolymer  
RL: FFD (Food or feed use); IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(continuous manuf. of transparent gas-barrier copolyesters with H3PO4, sulfonic acids, and Sb2O3 catalysts)

L11 ANSWER 33 OF 110 CA COPYRIGHT 2002 ACS  
 AN 130:224168 CA  
 TI Transparent and heat-resistant polyester containers with improved  
 gas-barrier and UV-shielding properties for medical use  
 IN Kitakawa, Hironobu; Matsui, Yoshinao; Kato, Yoshio; Eto, Yoshitaka  
 PA Toyoko Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L067-02  
 ICS A61J001-05; B65D001-09; **C08G063-183; C08G063-189;**  
 B29K067-00

CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 37, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11049941	A2	19990223	JP 1997-212122	19970806
AB	The containers are manufd. from a blend of 50-99% poly(ethylene naphthalate) (PEN) and 1-50% PET, characterized in that the body parts of the containers have haze .ltoreq.15%, and undrawn parts of the containers satisfying (1) crystn.-peak temp. (Tcl; measured by DSC at heating rate 1.degree./min) .gtoreq.165.degree., (2) $0.60X + 120.0$ .ltoreq. Tcl .ltoreq. $0.60X + 155.0$ (X = wt.% of PEN), (3) $0.87X + 178.0$ .ltoreq. Tm .ltoreq. $0.87X + 193.0$ (Tm = m.p.), and (4) crystn. heat (Qc) .gtoreq.15 mJ/mg, and melting heat (Qm) .gtoreq.20 mJ/mg. Thus, 95 parts PEN [97:3 mol% ethylene terephthalate (I) units and ethylene 2,6-naphthalate (II) units] was blended with 5 parts PET (10:90 mol% I units and II units), injection molded, and stretch-blow molded to give a medical container showing Tcl 197.degree., Tm 268.degree., Qc 32 mJ/mg, Qm 42 mJ/mg, haze 3.9%, and light transmittance .ltoreq.10% at 380 nm.				
ST	transparent heat resistant polyester medical container; gas barrier PET blend container; polyethylene naphthalate blend container				
IT	Containers (gas-impermeable; transparent heat-resistant polyester containers)				
IT	Containers (heat-resistant; transparent heat-resistant polyester containers)				
IT	Medical containers Transparent materials (transparent heat-resistant polyester containers)				
IT	Polyesters, uses FL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (transparent heat-resistant polyester containers)				
IT	Polymer blends FL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (transparent heat-resistant polyester containers)				
IT	25038-59-9P, Ethylene glycol-terephthalic acid copolymer, uses <b>25915-92-8P</b> , Ethylene glycol-2,6-naphthalenedicarboxylic acid-terephthalic acid copolymer FL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); THU (Therapeutic use); BIOL (Biological				

study); PREP (Preparation); USES (Uses)  
    (transparent heat-resistant polyester containers)  
IT 26221-57-8P, Dimethyl 2,6-naphthalate-dimethyl terephthalate-ethylene  
glycol copolymer  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); THU (Therapeutic use); BIOL (Biological study); PREP  
(Preparation); USES (Uses)  
    (transparent heat-resistant polyester containers)

L11 ANSWER 50 OF 110 CA COPYRIGHT 2002 ACS

AN 128:154549 CA

TI Manufacture of copolymerized polyethylene terephthalate with good transparency

IN Umetsu, Masaki; Sato, Kimihiko

PA Teijin Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM **C08G063-189**

ICS **C08G063-78; C08G063-85**

CC 35-5 (Chemistry of Synthetic High Polymers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10045883	A2	19980217	JP 1997-136684	19970527
PRAI	JP 1996-136359		19960530		

AB Transparent colorless polyethylene terephthalate is manufd. from ethylene glycol, terephthalic acid, and di-Me 2,6-naphthalenedicarboxylate and have

the ratio of terephthalic acid to 2,6-naphthalenedicarboxylic acid 80-95 to 20-5, metal residue content 1.0 to 10 mmol%, and phosphorous compd. content 3-20 mmol%. The polymn. process is characterized by adding di-Me 2,6-naphthalenedicarboxylate to the reaction when the av. polymn. degree of ethylene glycol and terephthalic acid below 10 and then allowing the polymn. to continue.

ST polyethylene terephthalate naphthalenedicarboxylate copolymer transparent manuf

IT Transparent materials

(manuf. of copolymd. polyethylene terephthalate with good transparency)

IT Polyesters, preparation

FL: IMF (Industrial manufacture); PRP (Properties); PPEP (Preparation)  
(manuf. of copolymd. polyethylene terephthalate with good

transparency)

IT Polymerization

(melt; manuf. of copolymd. polyethylene terephthalate with good transparency)

IT Polymerization

(solid-state; manuf. of copolymd. polyethylene terephthalate with good transparency)

IT 71-48-7, Cobalt acetate 1310-53-8, Germanium oxide, uses

FL: CAT (Catalyst use); USES (Uses)

(manuf. of copolymd. polyethylene terephthalate with good transparency)

IT **27289-84-5P**, Dimethyl 2,6-naphthalenedicarboxylate-ethylene glycol-terephthalic acid copolymer

PL: IMF (Industrial manufacture); PRP (Properties); PPEP (Preparation)  
(manuf. of copolymd. polyethylene terephthalate with good

transparency)



L11 ANSWER 58 OF 110 CA COPYRIGHT 2002 ACS

AN 127:221168 CA

TI Manufacture of PET-based polyesters with excellent heat resistance, transparency, and gas-barrier property

IN Kuramoto, Michiko; Ueda, Atsuko

PA Nippon Ester Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM **C08G063-189**

ICS **C08G063-85**

CC 35-5 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 38

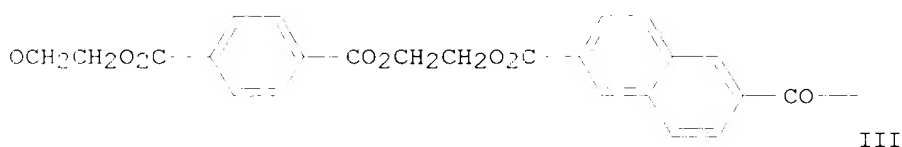
FAN.CIT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 09221541	A2	19970826	JP 1996-53883	19960215
AB	The polyesters, useful for bottles, films, fibers, etc., are manufd. by (i) transesterification of dialkyl 2,6-naphthalenedicarboxylate (I) and ethylene glycol (II) in the presence of (lower polymers of) bis(.beta.-hydroxyethyl) terephthalate (III) and Ti (or Sn) compds. and (ii) polycondensation to give the PET contg. I 3-15 mol% (vs. total dicarboxylic acids). The copolymers may show intrinsic viscosity .gtoreq.0.70. Thus, 864.5 kg terephthalic acid was esterified with 387.6 kg ethylene glycol at 50.degree. to give III (av. polymn. degree 7), then 4.9 kg I (alkyl = Me) was transesterified with 8.7 kg II at 260.degree. in the presence of 46.2 kg III and (BuO)4Ti and polymd. at 280.degree. in the presence of Sb2O3 to give a PET [.eta. (20.degree., in 1:1 PhOH/C2H2Cl4) 0.85, Tg 80.degree., m.p. 238.degree., diethylene glycol 1.64 mol%], which was chipped, press-molded, and biaxially stretched to give a 12-.mu.-thickness film showing haze 1.5% and color tone (b value) 3.2.				
ST	naphthalenedicarboxylate copolymd PET heat resistance; transparent molding polyethylene terephthalate naphthalenedicarboxylate; gas impermeable PET molding naphthalenedicarboxylate copolymd				
IT	Transparent films (heat-resistant; manuf. of PET copolyng. alkyl naphthalenedicarboxylates for transparent heat-resistant moldings with good gas impermeability)				
IT	Aromatic polyesters FL: IMF (Industrial manufacture); PPP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (manuf. of PET copolyng. alkyl naphthalenedicarboxylates for transparent heat-resistant moldings with good gas impermeability)				
IT	Heat-resistant films (transparent; manuf. of PET copolyng. alkyl naphthalenedicarboxylates for transparent heat-resistant moldings with good gas impermeability)				
IT	5593-70-4, Tetra(n-butyl) titanate 81489-56-7, Dimethyltin bismaleate FL: CAT (Catalyst use); USES (Uses) (manuf. of PET copolyng. alkyl naphthalenedicarboxylates for transparent heat-resistant moldings with good gas impermeability)				
IT	<b>27289-84-5P</b> , Dimethyl 2,6-naphthalenedicarboxylate-ethylene glycol-terephthalic acid copolymer FL: IMF (Industrial manufacture); PPP (Properties); TEM (Technical or				

engineered material use); PREP (Preparation); USES (Uses)  
(manuf. of PET copolymg. alkyl naphthalenedicarboxylates for  
transparent heat-resistant moldings with good gas impermeability)  
IT 959-26-2P, Bis(.beta.-hydroxyethyl) terephthalate  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation)  
(manuf. of PET copolymg. alkyl naphthalenedicarboxylates for  
transparent heat-resistant moldings with good gas impermeability)

LI1 ANSWER 60 OF 110 CA COPYRIGHT 2002 ACS  
 AN 127:35093 CA  
 TI Aromatic polyester compositions, their manufacture, and preforms and bottles having good transparency, heat resistance, and UV shielding property  
 IN Hata, Isao; Hama, Takashi; Ito, Toshihiro  
 PA Mitsui Petrochemical Industries, Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM **C08G063-91**  
 ICS B29C045-00; C08G081-00; C08L067-02; B29K067-00; B29L031-56  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 38  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09124785	A2	19970513	JP 1995-285718	19951102
GI					



AB The polyester comps. have structure units of poly(ethylene terephthalate) (I), poly(ethylene naphthalate) (II), and III wherein amt. of III is 30-200 mol for 100 mol I or II (one of lower content). The comps. are manufd. by kneading I and II. The preforms and bottles comprise the polyester comps. Thus, 90 parts I and 10 parts II were blended and molded at 270-290.degree. to give a preform with Haze 2%, which was molded at 110-150.degree. to give a biaxially drawn bottle with Haze 0.9% and Tg 80.degree..

ST polyethylene terephthalate naphthalate blend preform bottle; heat resistance polyethylene terephthalate naphthalate bottle; transparency bottle polyethylene terephthalate naphthalate

IT Bottles  
 Heat-resistant materials  
 Transparent materials  
 (manuf. of arom. polyester comps. for preforms and bottles having good transparency, heat resistance, and UV shielding property)

IT Polyesters, properties  
 FL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (manuf. of arom. polyester comps. for preforms and bottles having good transparency, heat resistance, and UV shielding property)

IT **25915-92-8P**, Ethylene glycol-2,6-naphthalenedicarboxylic acid-terephthalic acid copolymer  
 FL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

(Properties); TEM (Technical or engineered material use); PREP

(Preparation); USES (Uses)

(manuf. of arom. polyester compns. for preforms and bottles having

good

transparency, heat resistance, and UV shielding property)

IT 25038-59-9, Polyethylene terephthalate, properties 51806-50-9,  
1,4-Butanediol-naphthalenedicarboxylic acid copolymer, sru 52309-38-3,  
1,4-Butanediol-naphthalenedicarboxylic acid copolymer

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
engineered material use); USES (Uses)

(manuf. of arom. polyester compns. for preforms and bottles having

good

transparency, heat resistance, and UV shielding property)

L11 ANSWER 95 OF 110 CA COPYRIGHT 2002 ACS

AN 118:104361 CA  
TI Polyester food packaging containers with modified ultraviolet shielding  
IN Hatayama, Toshio; Shimoma, Akira  
PA Teijin Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B29C049-00  
ICS B29C055-02; B65D001-09; C08G063-189; C08J007-04

ICI B29K067-00, B29L022-00

CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 17

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04239624	A2	19920827	JP 1991-21440	19910123
AB	The title containers, useful for packaging of foods, alc. beverage, cooking oils, meats, etc., comprise copolymers or blends contg. 90-99.8% ethylene terephthalate units and 0.2-10% ethylene naphthalenedicarboxylate (I) units. Thus, sesame-seed oil in a bottle prepd. from PET contg. 4.5% I polymer showed viscosity (in o-PhCl, 35.degree.) 49.5 and 49.6 cP, before and after exposed to UV radiation, vs. 50.1 and 53.6, resp., for a bottle of 100% PET.				
ST	PET polyethylene naphthalenedicarboxylate blend bottle; UV shielding polyester container; food bottle UV shielding				
IT	Shields (UV-irradn., containers as, blends of poly(ethylene naphthalenedicarboxylate) and PET for)				
IT	Food (UV-shielding containers for, from blends of poly(ethylene naphthalenedicarboxylate) and PET as)				
IT	Bags Bottles (blends of poly(ethylene naphthalenedicarboxylate) and PET for, UV shielding)				
IT	Polyesters, uses RL: USES (Uses) (for UV shielding containers)				
IT	Ultraviolet radiation (shields against, containers as, blends of poly(ethylene naphthalenedicarboxylate) and PET for)				
IT	Containers (cups, blends of poly(ethylene naphthalenedicarboxylate) and PET for, UV shielding)				
IT	9020-32-0, Ethylene glycol-naphthalenedicarboxylic acid copolymer 9020-73-9 FL: USES (Uses) (blends with PET, for UV shielding containers)				
IT	25038-59-9, PET polyester, uses RL: USES (Uses) (blends with poly(ethylene naphthalenedicarboxylate), for UV shielding containers)				
IT	118611-01-1, Ethylene glycol-naphthalenedicarboxylic acid-terephthalic acid copolymer RL: USES (Uses)				

L13 ANSWER 115 OF 120 CA COPYRIGHT 2002 ACS  
 AN 115:184729 CA  
 TI Transparent polyester resin compositions with good gas-barrier properties and processability  
 IN Kitagawa, Hironobu; Kobayashi, Takamaro; Hirasawa, Fujio; Matsunaga, Tsuyoshi  
 PA Toyobo Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM **C08L067-02**  
 CC B7-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03140358	A2	19910614	JP 1989-280591	19891027
	JP 3033100	B2	20000417		
AB	The title compns. comprise 10-90 parts PET (I) and 90-10 parts copolyesters composed of 40-90 mol% ethylene 2,6-naphthalate unit (A) and 60-10 mol% ethylene isophthalate unit (B). Thus, naphthalene 2,6-dicarboxylic acid, isophthalic acid, and ethylene glycol were polymd. to give a copolyester composed of 50:50 (mol ratio) of unit A and B. Then, 10 parts I was mixed with 90 parts of the copolymer, rolled to form a 300-.mu.m sheet, then biaxially stretched at 3 .times. 3 stretching ratio to give a film showing O permeation coeff. 0.42 mL-mm/m2-24 h-atm, vs. 1.80 for 100 parts I alone.				
ST	PET blend copolyester gas barrier; transparent PET copolyester blend; ethylene naphthalate isophthalate copolyester blend				
IT	Polyesters, uses and miscellaneous				
	FL: USES (Uses) (PET-ethylene isophthalate naphthalate copolymer blends, transparent, with good gas-barrier properties)				
IT	Transparent materials				
	(oxygen-impermeable, PET-ethylene isophthalate naphthalate copolymer blend films)				
IT	<b>123818-89-3</b> , Ethylene glycol-isophthalic acid-naphthalene 2,6-dicarboxylic acid copolymer FL: USES (Uses) (PET blends, transparent, with good gas-barrier properties)				
IT	<b>15038-59-9</b> , PET (polyester), uses and miscellaneous FL: USES (Uses) (blends, with naphthalene dicarboxylic acid-ethylene glycol-isophthalic acid copolymer, transparent, with good gas-barrier properties)				

L13 ANSWER 116 OF 120 CA COPYRIGHT 2002 ACS  
 AN 115:73282 CA  
 TI UV ray-barrier copolyester hollow and transparent moldings  
 IN Hatayama, Toshio; Oki, Yasumasa; Shimoma, Akira  
 PA Teijin Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08J005-00  
 ICS **C08L067-02**  
 ICI C08L067-02  
 CC 38-3 (Plastics Fabrication and Uses)  
 FAN.CMT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03043425	A2	19910225	JP 1989-177148	19890711
	JP 07010926	B4	19950208		

AB Title moldings useful as containers for cosmetics, detergents, food, etc.,  
 are made from a copolyester comprising 60-99.8% ethylene terephthalate units and 0.2-40% ethylene naphthalenedicarboxylate units. The title hollow moldings also can be made from a blend of PET and poly(ethylene naphthalenedicarboxylate) (I). Thus, blow molding a 99.8:0.2 blend of  
 PET  
 and I at 95.degree. gave a bottle with good appearance and haze 0.7%, vs. good appearance and 0.6, resp. for PET alone.  
 ST PET polyethylene naphthalenedicarboxylate blend bottle; bottle polyethylene naphthalenedicarboxylate blend; UV blocking polyethylene naphthalenedicarboxylate blend  
 IT Bottles  
 (PET-poly(ethylene naphthalenedicarboxylate) blends for manuf., UV ray-barrier)  
 IT Polyesters, uses and miscellaneous  
 RL: USES (Uses)  
 (PET-poly(ethylene naphthalenedicarboxylate) blends, hollow moldings, UV ray-barrier, as containers)  
 IT 9020-73-9  
 RL: USES (Uses)  
 (PET blends, hollow moldings, UV ray-barrier, as containers)  
 IT **118611-01-1**  
 RL: USES (Uses)  
 (hollow moldings, UV ray-barrier, as containers)  
 IT 25038-59-9, PET polymer, uses and miscellaneous  
 RL: USES (Uses)  
 (poly(ethylene naphthalenedicarboxylate) blends, hollow moldings, UV ray-barrier, as containers)